



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number	10/539,208
Filing Date	MAY 24, 2006
First Named Inventor	DAVID RAAB
Art Unit	1644
Examiner Name	NOT YET ASSIGNED
Attorney Docket Number	B&B-135

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**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	us- 2002/0072864A1	06/13/2002	LACROIX et al.	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> "Number" <sup>4</sup> "Kind Code" <sup>5</sup> (if known)				
	2	WO 98/34640	08/13/1998	MERCK & CO., INC.		
	3	WO 00/42560	07/20/2000	MXYGEN, INC.		
	4	DE 199 14 808 A1	10/19/2000	RAUHE, HILMAR		
	5	WO 01/16810 A2	03/08/2001	THE EUROPEAN MOLECULAR BIOLOGY LAB.		
	6	EP 1 156 112 A1	11/21/2001	GENEART GMBH		

Examiner Signature	/Shubo Zhou/	Date Considered	06/21/2010
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		Country Code <sup>3</sup> *Number <sup>4</sup> *Kind Code <sup>5</sup> (if known)				
	7	WO 02/29088 A2	04/112002	TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA		

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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	8	HOOVER DAVID M ET AL: "DNAWorks: an automated method for designing oligonucleotides for PCR-based gene synthesis" NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, Bd. 30, Nr. 10, 15, Mai 2002 (2002-05-15).	
	9	CHRISLAINE WITHERS-MARTINEZ ET AL: "PCR-based gene synthesis as an efficient approach for expression of the A+T-rich malaria genome" PROTEIN ENGINEERING, OXFORD UNIVERSITY PRESS, SURREY, GB, Bd. 12, Nr. 12, December 1999 (1999-12).	
	10	WILLIAMS D P ET AL: "DESIGN, SYNTHESIS AND EXPRESSION OF A HUMAN INTERLEUKIN-2 GENE INCORPORATING THE CONDON USAGE BIAS FOUND IN HIGHLY EXPRESSED ESCHERICHIA COLI GENES" NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, Bd. 16, Nr. 22, 25 November 1988 (1988-11-25).	
	11	LEE F ET AL: "ISOLATION OF COMPLEMENTARY DNA FOR A HUMAN GRANULOCYTE-MACROPHAGE COLONY-STIMULATING FACTOR BY FUNCTIONAL EXPRESSION IN MAMMALIAN CELLS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, Bd. 82, Nr. 13, 1985.	
	12	MEAZZA R ET AL: "Identification of a novel interleukin-15 (IL-15) transcript isoform generated by alternative splicing in human small cell lung cancer cell lines." ONCOGENE. 16 MAY 1996, Bd. 12, Nr. 10, 16, Mai 1996 (1996-05-16).	
	13	SINCLAIR, G. & CHOY, F.Y.: Synonymous codon usage bias and the expression of human glucocerebrosidase in the methylotrophic yeast, Pichia pastoris. Protein Expr. Purif. (October 2002) 26 (1) 96-105.	
	14	HAMDAN, F.F. et al.: Codon optimization improves heterologous expression of a Schistosoma mansoni cDNA in HEK293 cells. Parasitol. Res. (June 2002) 88 (6) 583-6.	
	15	DEML, L. et al.: Multiple effects of codon usage optimization on expression and immunogenicity of DNA candidate vaccines encoding the human immunodeficiency virus type 1 Gag protein. J. Virol. (2001) 75 (22) 10991-1001	

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	16	HALE, R.S. & THOMPSON, G.: Codon optimization of the gene encoding a domain from human type 1 neurofibromin protein results in a threefold improvement in expression level in Escherichia coli. Protein Expr. Purif. (1998) 12 (2) 185-8.	
	17	HUMPHREYS, D.P. et al.: High-level periplasmic expression in Escherichia coli using a eukaryotic signal peptide: importance of codon usage at the 5' end of the coding sequence. Protein Expr. Purif. (2000) 20 (2) 252-64	
	18	KIM, C.H. et al.: Codon optimization for high-level expression of human erythropoietin (EPO) in mammalian cells. Gene (1977) 199 (1-2) 293-301	

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